

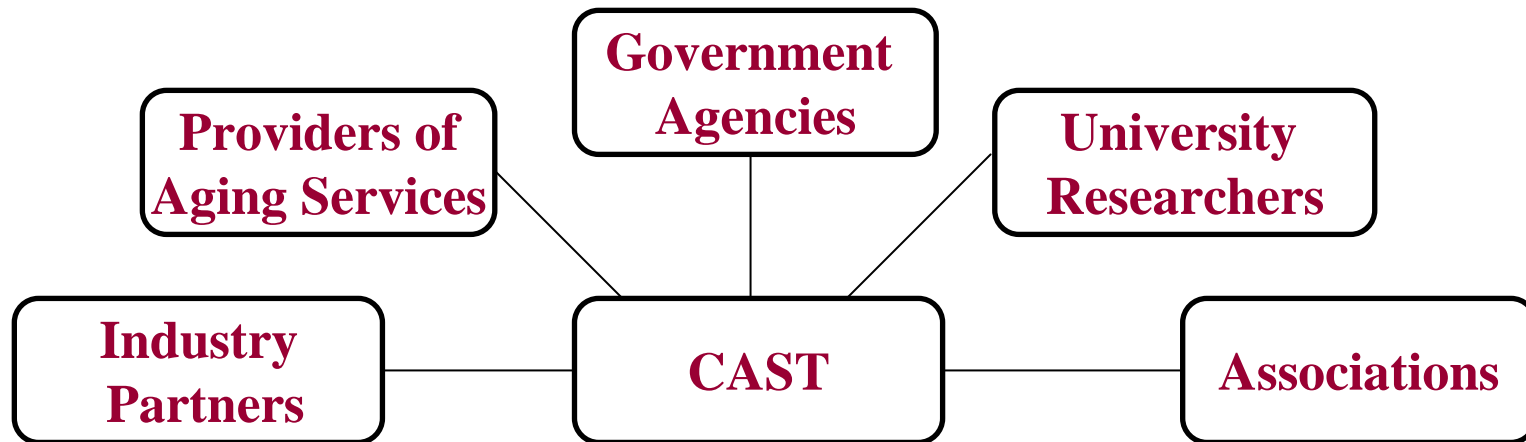


The Future of Aging Services: “The Perfect Storm and CAST’s Role”

Majd Alwan, Ph.D, Director
Center for Aging Services
Technologies (CAST)



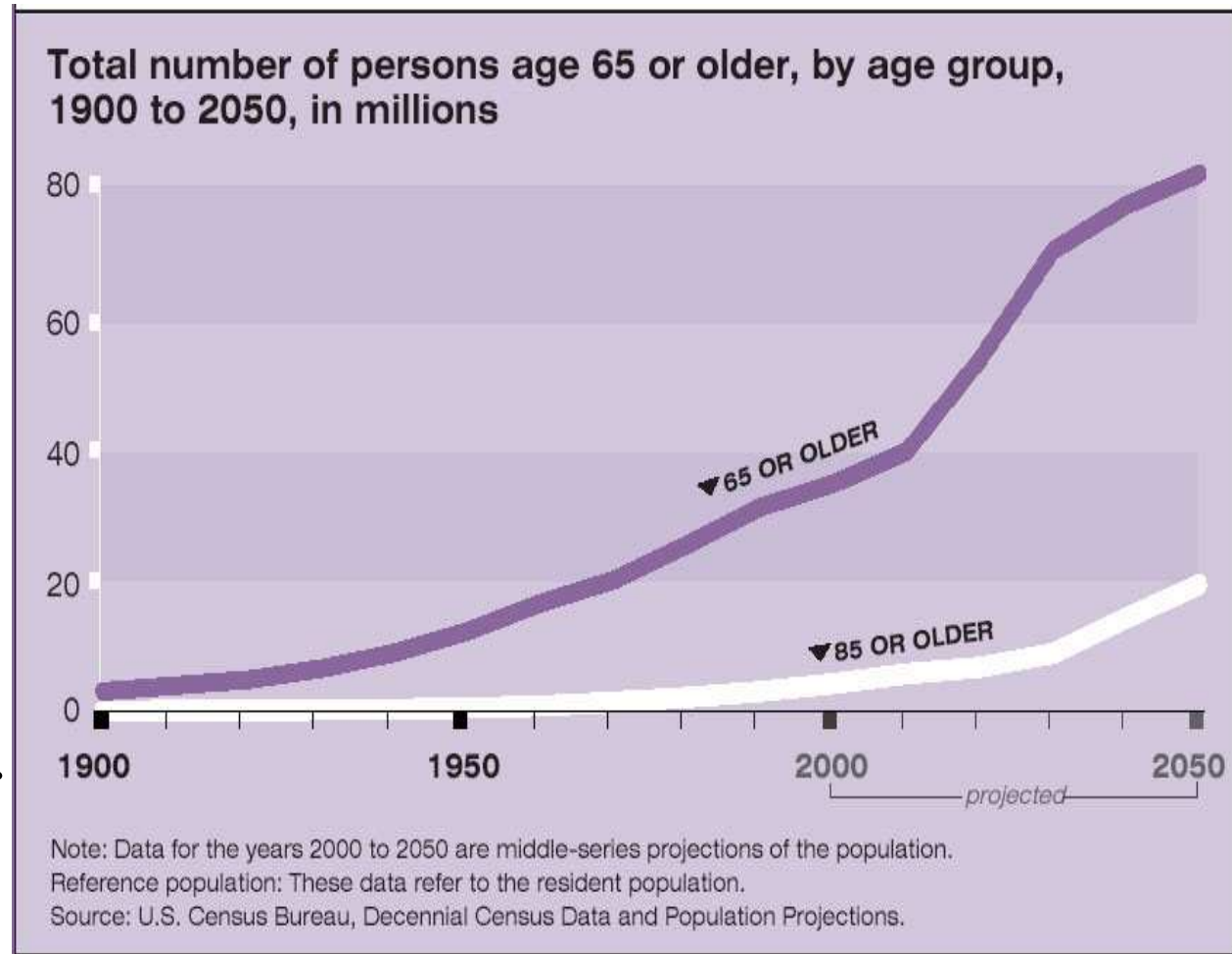
What is CAST?



CAST is a coalition of over 400 technology companies, businesses, universities, and aging service providers working together to create a future paradigm of senior care empowered by technology.

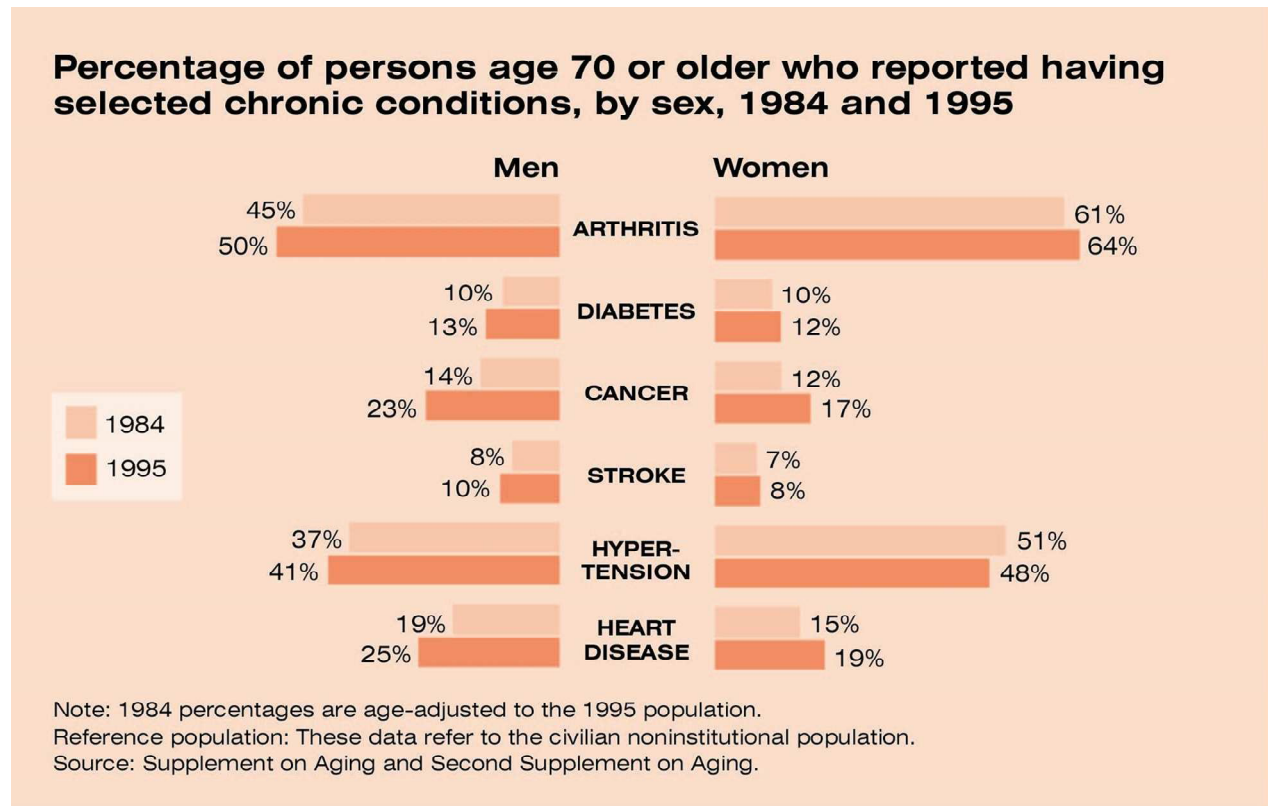
Why? Disruptive Demography

- Seniors are expected to double over the next 25 years
- Fewer health care professionals will be available.



Disruptive Demography

- 75% of people over 65 have one chronic condition or more
- Management of chronic conditions can reduce health care bill by up to 50%
- Majority of seniors require some formal/informal care.





Disruptive Economy

- US healthcare costs will rise to 20% of GDP or \$4T in 8 years
- Seniors have not financially planned: low/no savings, uncertainty with social security,
- Globalization of markets.



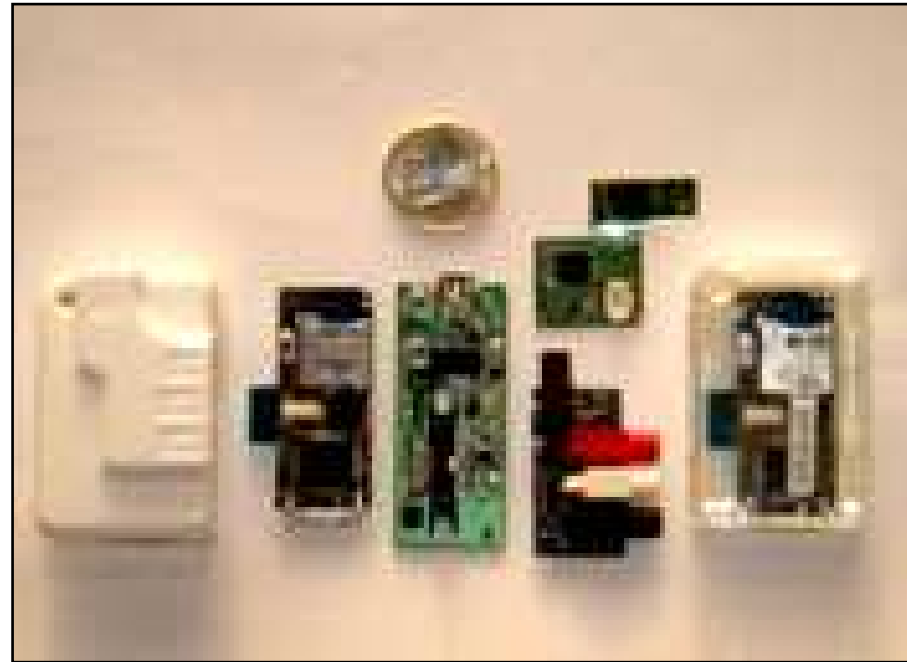
**The way we care for seniors today
cannot scale to meet the looming
global “age wave”**

AND

People want to stay at home.

Disruptive Technology

- Wearable, wireless sensor networks
- Web 2.0 personal software/services
- Powerful, affordable microprocessors
- Interconnectivity.





**These trends will force us to
explore new models of care for
seniors.**



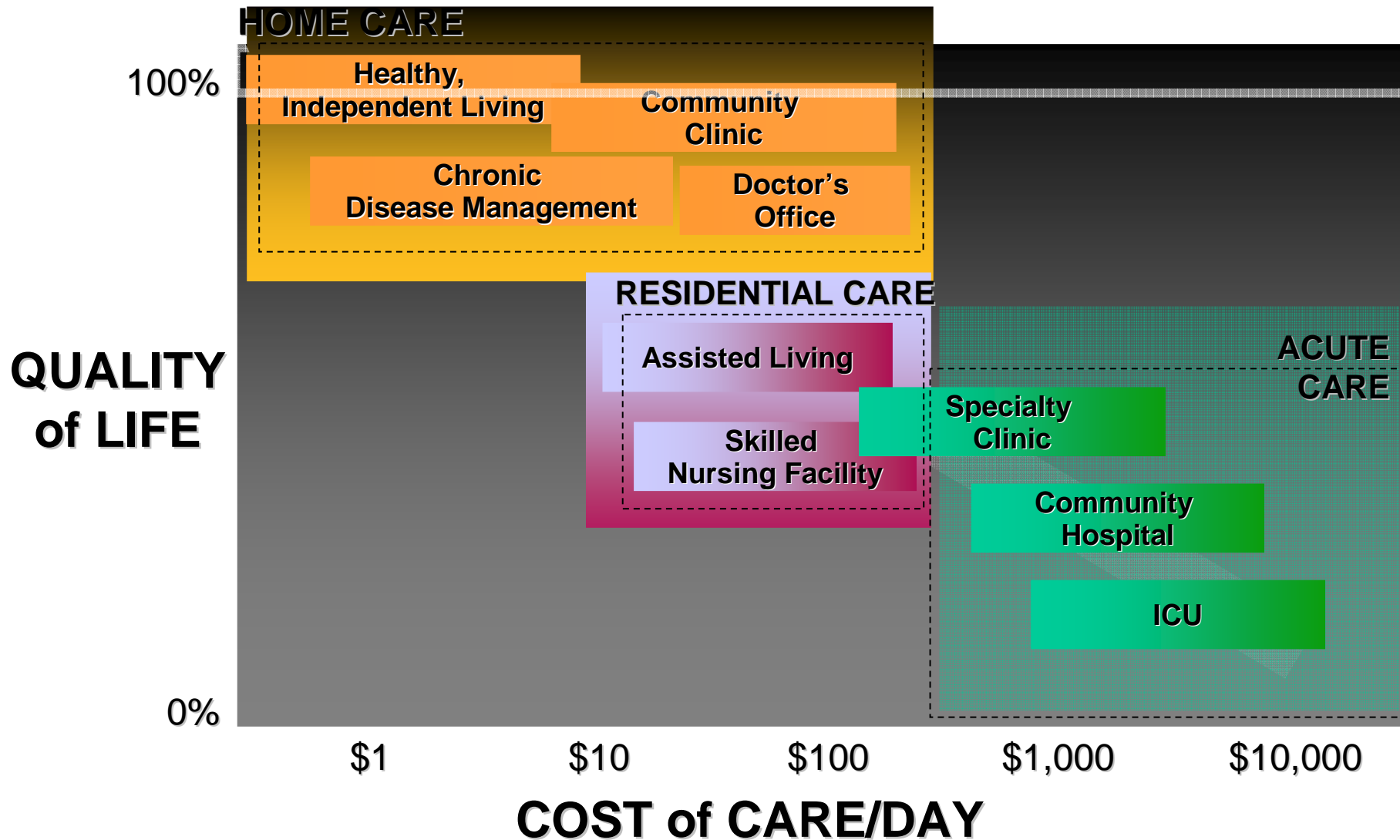
**“Imagine the Future of Aging”
Vision Video**

Concepts in the CAST Vision Video

- Distance
- Monitoring activities of daily living
- Caregiver network
- Portable medication reminder and dispenser
- Electronic personal health records
- Security and privacy
- Smart appliances
- Two-way video communication
- Non-invasive blood glucose measurement
- Games for cognitive stimulation with embedded assessment

INTEGRATION:
Inter-connectivity,
Inter-operability,
Inter-synthesis.

“Shift Left” through Technology





Potential of Technology

- Improved quality of life of seniors in Assisted Living
- Increased professional caregiver efficiency, reduced workloads, and reduced the cost of care by 75% in a controlled study in Assisted Living
- Reduced informal caregiver strains, and improved quality of life of seniors in Home Health
- Increased engagement of informal caregivers in Independent Living.



Problems with existing Technologies

- Practicability and Scalability (e.g. reliance on the **compliance** of the user, and **usability** issues)
- **Each device/ system has its own data structure, database, application, and interface**
- Electronic Personal and Health Records are still **not widespread**, and **existing ones are not interoperable**
- Standards for interoperability will evolve, but it will be a few years before they are adopted.

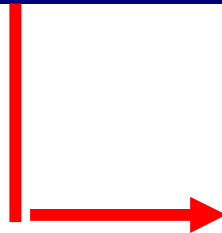
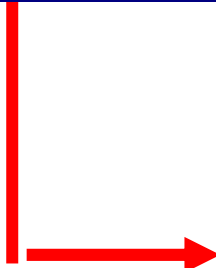


Realizing the Vision: Engaging the Care Providers/ Stakeholders

Understand the Problems

Identify the Appropriate Technology

Pilot Field Test, and Refine





Barriers to Proliferation

- Fragmented care system in the US, especially with respect to payment
- Policies, including reimbursement policies
- **Shortage of objective evidence on efficacy/ effectiveness of these technologies:**
 - Small sample population
 - Short period.



What does CAST do?

- Driving a **vision** that technologies can **improve the quality of life** for seniors while **reducing care burdens and costs**
 - ***Pilots***: Identifying needs that can be addressed by technology and accelerating technology R&D with seniors and aging service providers through Pilots
 - ***Policy***: Identifying barriers to the proliferation of proven appropriate technologies and advocating to remove these barriers
 - ***Standards***: Promoting a dialogue about standards to ensure interoperability and widespread access to aging services technologies
 - ***Education***: Disseminating information.



Recent CAST Activities: Pilots

- Launched the CAST Pilots initiative: Active involvement
- Assisting providers in pilot testing technologies Designing pilot studies
- Developing proposals for *Centers of Excellence*.



Recent CAST Activities: Policy

- Introduced a bill (S. 908) to establish a National Consortium to evaluate the impact of aging services technologies
- Planning a technology demo with Senate Committee on Aging parallel to a Senate Staff briefing around (S. 908)
- Policy Section in the monthly Newsletter
 - Awareness
 - Engagement
 - Advocacy



Recent CAST Activities: Education

- Launched an initiative to form CAST International Affiliates: Australia and Europe
- Resources:
 - State of Technology in Aging Services
 - Technology Day Guide
 - Technology Strategic Infrastructure Planning Handbook
- Conferences:
 - AAHSA Annual and Future of Aging Services Conferences
 - Healthcare Unbound
 - HIT in LTC Summit
 - Others – Grant Makers in Aging, State Conferences



Recent CAST Activities: Standards

- Helped in defining use cases relevant to the LTC sector
- Participated in ASPE sponsored research that produced recommendations for standardizing functional status assessments
- Contributed to ensuring that these standards have been incorporated in the HL7 CCD standard published in February, 2007
- Applied to join Continua.



Closing Remarks

- Technology is not an end goal, it is merely a means to an end
- Focus our efforts on appropriate technologies (usable, scalable, and economic) that enable High-Touch Quality Care
- Realizing the vision is not a technology problem, as much as it is an imagination, and process problem
- **CAST is a catalyst and is open to collaboration.**



Thank you ...

Contact Information:

Majd Alwan, Ph.D.

Director

Center for Aging Services Technologies (CAST)

(202) 508-9463

malwan@agingtech.org

www.agingtech.org